

<sup>(12)</sup> UK Patent Application <sup>(19)</sup> GB <sup>(11)</sup> 2 288 126 <sup>(13)</sup> A

(43) Date of A Publication 11.10.1995

(21) Application No 9506897.9

(22) Date of Filing **03.04.1995**

**14.07.1994**

GB 2288126 A

FIG. 1

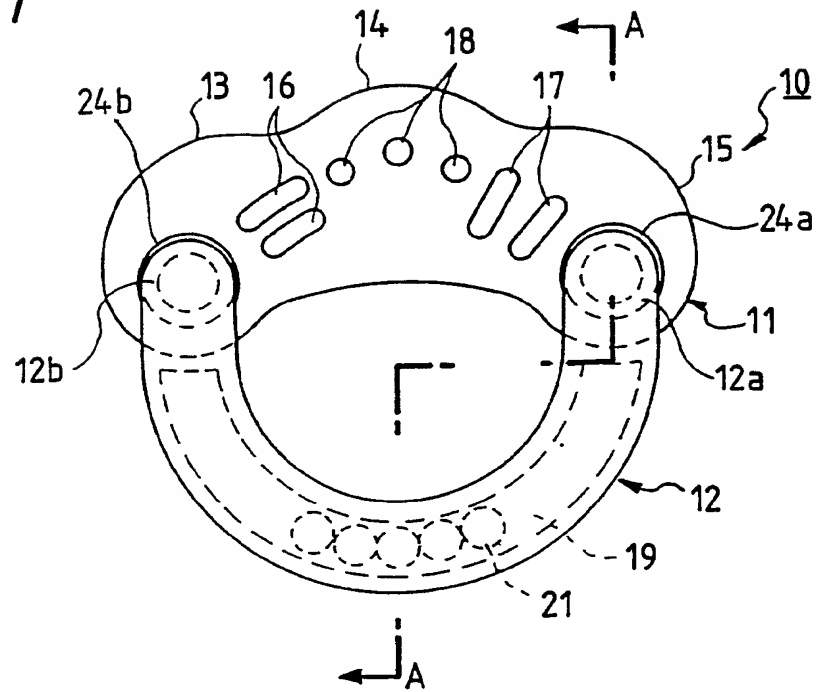


FIG. 2

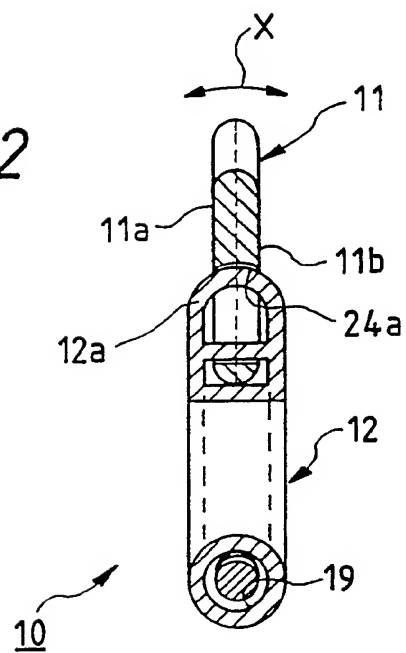


FIG. 3

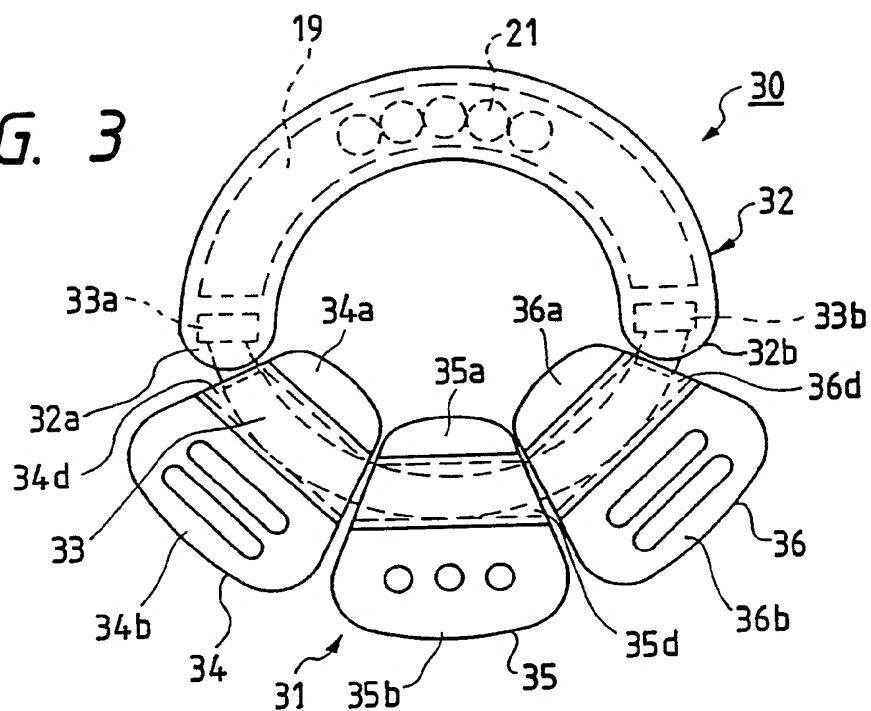


FIG. 4

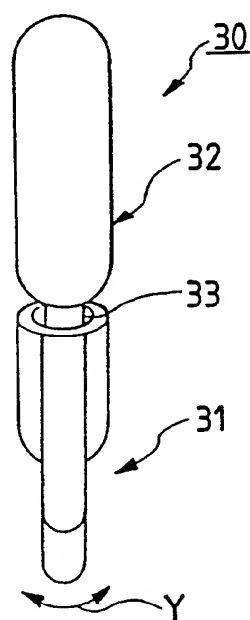


FIG. 5

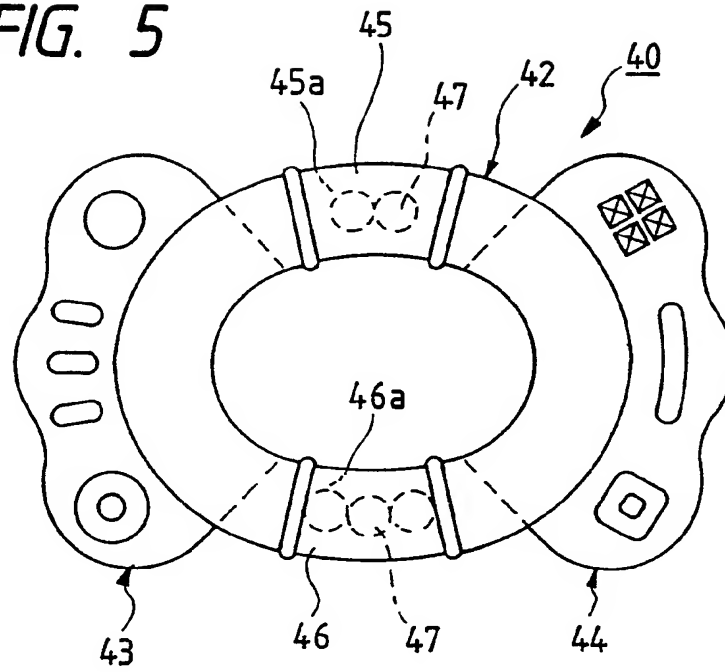


FIG. 6

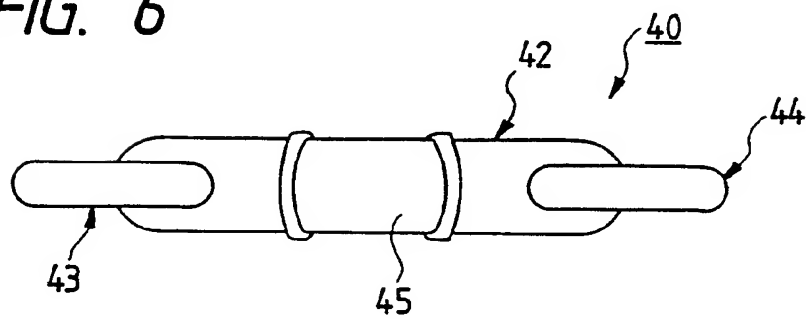


FIG. 7

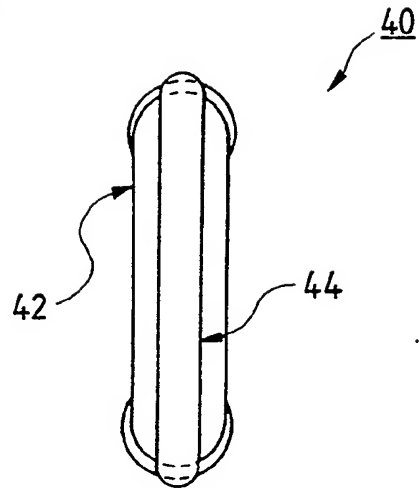
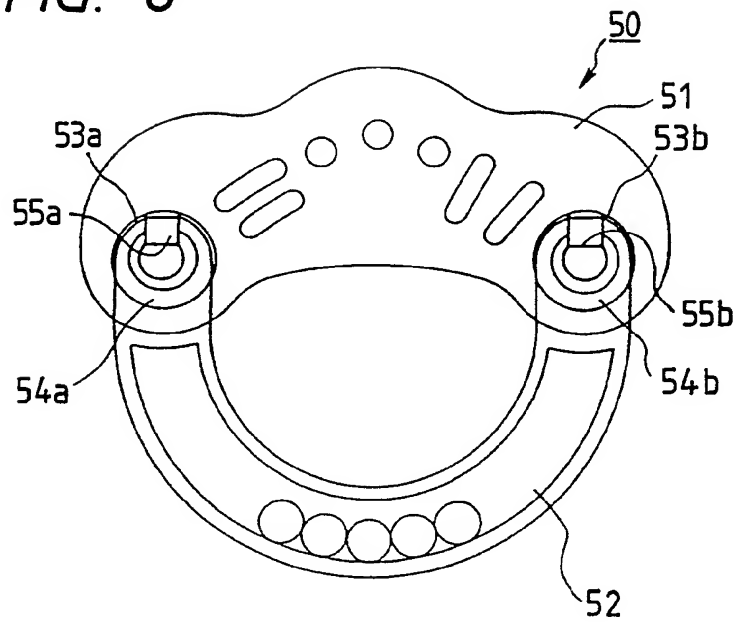
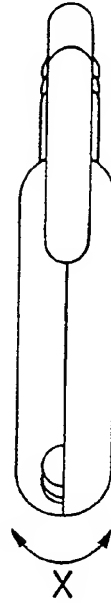


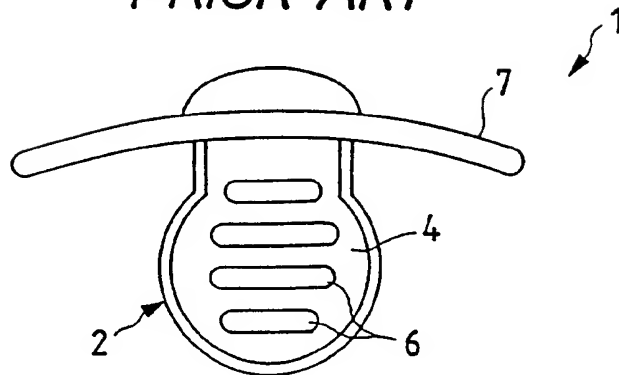
FIG. 8



*FIG. 9*



*FIG. 10*  
*PRIOR ART*



- 1 -

TEETHER

The present invention relates to a new and improved teether for babies and young children.

5

An example of a conventional teether is shown in Fig.10. As shown in Fig.10, the teether 1 comprises a guard member 7 and a teething element 2.

10 The guard member 7, made of hard rubber and formed like a disc, is placed for abutment against a periphery of a mouth of a baby, and the like, in order to secure the teether adjacent the mouth when he or she bites the teething element 2 of the teether 1, thereby preventing  
15 the babies and the like from swallowing the teether 1 or drawing the teether 1 deeply into the mouth.

The teething element 2, formed as a figure that babies and the like can easily bite, is made up of a  
20 laminate of soft and hard rubber, which provides different bite feelings between the upper and lower gums of the user.

Further, the teether 1 comprises projecting portions  
25 6 on the soft rubber 4, on an upper surface thereof.

According to this type of the teether 1, there is no problem while a baby is biting the teether, but when a baby releases such teether from the mouth, such teether  
30 easily drops to the ground and may be soiled. If, thereafter, the baby bites the soiled teether 1 again, a hygiene problem arises.

Further, such kind of conventional teether provides  
35 only one function, that is, a baby does not experience any

fun from the teether but bites the teether and soon loses interest.

5 In view of the foregoing disadvantages inherent in the known type of prior art, the present teether aims to solve the above problems. Thus, it is an object of the present invention to provide a teether, which is better for hygiene and is more interesting.

10 To attain the foregoing, a teether of the present invention may comprise a bite portion and a grip portion, attached to the teether element, wherein the grip portion is capable of making a sound, in order to attract attention of a baby and the like.

15 Further features of the invention are set out in the accompany claims, to which reference should now be made.

20 The instant invention will be more fully described and better understood from the following description, taken with the appended drawings, in which

25 Fig.1 is a front view of the first embodiment of the teether according to the present invention;

Fig.2 is a cross sectional view taken in the line A-A of Fig.1;

30 Fig.3 is a front view of the second embodiment of the teether according to the present invention;

Fig.4 is a side view of the teether of Fig.3;

35 Fig.5 is a front view of the third embodiment of the teether according to the present invention;



Fig.6 is a plan view of the teether of Fig.5;

Fig.7 is a side view of the teether of Fig.5;

5        Fig.8 is a front view of the fourth embodiment of the  
teether according to the present invention;

Fig.9 is a side view of the teether of Fig.8; and

10       Fig.10 is a side view of a conventional teether.

Referring to Figs.1 and 2 a teether 10 includes a  
teething element 11 and a grip portion 12 attached to the  
teething element 11.

15       More specifically, according to this embodiment, the  
teething element 11 is made up of a generally oval,  
laterally elongated, thin board, wherein an upper end  
portion thereof, as viewed in Fig.1, includes three  
20 protruding portions 13, 14, and 15, extending upwardly,  
Fig.1, which a baby can easily bit. The teething element  
11 is made of, for example, synthetic resin and includes  
plural protruding beams 16 and 17, formed in different  
directions from each other on a surface thereof, and  
25 protruding portions 18, formed at a predetermined position  
on a surface thereof.

As will be apparent, such protruding portions prevent  
the teether from easily slipping while a baby is biting  
30 the teether and provide different bite feelings  
corresponding thereto.

Further, it is preferable that the teething element  
11 be made up of two different materials, as shown in  
35 Fig.2, in which a dotted line, vertically dividing the

teething element 11 into left and right portions, wherein the material of the left portion (an upper portion when bitten) 11a, Fig.2, and that of the right portion 11b (a lower portion when bitten), Fig.2, are different in biting characteristics from each other. In this case, the upper portion 11a may be made of, for example, hard or plastic rubber while the lower portion may be made up of, for example, soft rubber or plastic.

10 In this embodiment, hard rubber, such as styrene butadiene copolymer having a hardness of about 90 degree, is preferably employed for the upper portion 11a, while soft rubber, such as styrene butadiene copolymer having a hardness of about 30 degree, is preferably employed for the lower portion 11b.

As shown in Fig.1, the grip portion 12, formed as a semicircular ring such that the baby can easily grip it, is swingably connected, in a direction of an arrow X, as viewed in Fig.2, to bores 24a, 24b, formed at the each end of the teething element 11, at each end portion 12a, 12b of grip portion 12.

As shown in Fig.2, the grip portion 12 is made of, for example, resin tube having a semicircular interior space 19, and, more preferably, an upper or lower surface of which is transparent. Additionally, as shown in Fig.1, plural spherical bodies 21 are received in the interior space 19.

30 The interior space 19 of the grip portion 12 is elongated in a longitudinal direction, Fig.1, and closed at both ends thereof so that the spherical bodies 21 can freely roll inside it.

35

Accordingly, when a user, such as a baby, grips the grip portion 12, the spherical bodies 21 roll along the interior space 19 and bump with each other or bump against the end portion of the interior space 19, thereby making  
5 a sound.

Further, it is preferably that the spherical bodies 21 be colored with different colors, such as red, blue, yellow, and green in order to attract the attention of the  
10 users, such as babies.

When the teether 10, according to this embodiment, constructed as described above, is used by a user, such as a baby, the user bites the teething element 11 while  
15 gripping the grip portion 12 by hand.

If the teething element 11 includes a laminate of upper and lower portions, made up of different materials, such as soft and hard rubber or plastic, it provides  
20 different soft and hard bite feelings between the upper and lower jaws of the baby user. If the teether 10 is turned upside down in turn when the baby bites it, a preferable bite training can be provided for the gums of the upper and lower jaws, thereby smoothly transferring  
25 from teething to weaning.

When the user bites the teether 10 according to the present invention, unlike the prior art as shown in Fig.10, such user can keep gripping the teether by hand  
30 after releasing the teether from the user's mouth, so that the teether 10 is prevented from dropping and being soiled and assuring hygienic use.

Furthermore, because the teething element 11 is  
35 swingably mounted, in a direction of the arrow X as viewed

in Fig.2, on the grip portion 12, the teething element 11, even if the user firmly grip the grip portion 12, can freely follow the movement of the user's mouth.

5           Still more, when the user, such as a baby, grips the grip portion 12, the spherical bodies 21, responsive to the movement of the user's hand, roll along the interior space 19 and bump with each other or bump against the end portion of the interior space 19, thereby making a  
10   predetermined sound, which, in turn, attracts the attention of the baby and provides the baby with a very interesting toy.

          What is more, if the spherical bodies 21, received in  
15   the interior space 19 of the grip portion 12, are differentially colored from each other, the movement of the colored spherical bodies 21 can all the more attract the attention of the user, such as a baby, thereby providing an added value as a toy.

20

          Fig.3 and Fig.4 illustrate the second embodiment of the teether 30 according to the present invention.

          In this embodiment, unlike the first embodiment,  
25   there are formed plural divided teething elements.

          That is, the teether 30 includes a grip portion 32 and bite portions 31. The grip portion 32 of this embodiment is similarly constituted as that of the first  
30   embodiment, and includes plural spherical bodies received in the semicircular interior space 19.

          A support ring 33 is mounted on the grip portion 32. In this embodiment, each end portion 33a, 33b of the  
35   support ring 33 may be fixed to the grip portion 32, or

may be swingably mounted, in a direction of an arrow Y as viewed in Fig.4, on, for example, both end portions 32a, 32b of the grip portion 32 through a projecting portion (not shown) formed at both end portions 32a, 32b thereof.

5

A teething element 31 comprises, for example, three bite strips 34, 35, and 36, mounted on the support ring 33. That is, each bite strip 34, 35 and 36 includes a bore 34d, 35d and 36d formed therewithin on the side of base portion, through which the support ring 33 is inserted.

10

It is preferable, like the foregoing teething element 11 of the first embodiment, that the bite strip 34, 35 and 36 be made up of, for example, hard rubber and soft rubber wherein each of the bite strip 34, 35 and 36 is generally sector-shaped, extending outwardly, to form an inner small portion 34a, 35a and 36a and an outer large portion 34b, 35b, and 36b for being bitten by the user, with respect to the support ring 33.

20

As will be apparent from the foregoing, according to this embodiment, the teething element 31 is divided into three bite strips 34, 35, 36, and is supported by the support ring 33, which is preferably capable of swinging in a direction of the arrow Y as shown in Fig.4. Further, because each of the bite strip 34, 35, 36 is, respectively, mounted on the support ring 33, each bite strip 34, 35, 36 is independently rotatable with respect to the support ring 33.

30

Accordingly, according to this embodiment, unlike the prior art as shown in Fig.10, the user can avoid dropping the teether by gripping the grip portion 32 thereof while it can function, like that of the first embodiment, as a toy.

35

Further, the user, such as a baby, can selectively bite the bite strips 34, 35, or 36, each of which can move independently of the others, while gripping the grip portion 32.

5

Furthermore, when the user, such as a baby, grips the grip portion 32, the spherical bodies 21, responsive to the movement of the user's hand, roll along the interior space 19 and bump with each other or bump against the end portion of the interior space 19, thereby making a  
10 predetermined sound, which, in turn, attracts the attention of the baby and gives the baby a very interesting toy.

15 Fig.5 through Fig.7 illustrate the third embodiment of the teether according to the present invention, wherein Fig.5 shows a front view thereof, Fig.6 shows a plan view thereof, and Fig.7 shows a side view thereof.

20 As shown in Fig.5, a teether 40 of this embodiment includes a generally oval grip portion 42 and two sector-shaped teething element 43, 44, projecting outwardly from a right end and a left end portion of the grip portion 42.

25 The grip portion 42 includes an upper and a lower hollow tube portion 45, 46 at each upper and lower end thereof, as viewed in Fig.5, having an interior space 45a, 46a therewithin, wherein, like in the first and second embodiments, plural spherical bodies 47 are received  
30 inside the interior space 45a, 46a.

It is preferable that the teething elements 43, 44 include a laminate of upper and lower portions, made up of different materials, such as soft and hard rubber, thereby

providing different soft and hard bite feelings between the upper and lower jaws.

Further, because plural spherical bodies 47 are  
5 received inside the two interior spaces 45a and 46a, when the user grips the grip portion 42, the spherical bodies 47, responsive to the movement of the user's hand, make a more variable sound than that of the first embodiment, which, in turn, makes this embodiment more attractive to  
10 the user.

Furthermore, because the user, such as a baby, can securely hold the teether 40 by gripping the grip portion 42 thereof, the user will not drop the teether after  
15 removing the teether from the mouth, so that the teether 40 is prevented from being inadvertently soiled and the teething element 43, 44 can be kept hygienic.

Still more, the grip portion 42, serving as a toy,  
20 makes the teether attractive and draws attention of babies, and the like, and gives them greater sensory stimulation than that inherent in the conventional teether.

25 Fig.8 and Fig.9 illustrate the teether according to the fourth embodiment.

AS will be apparent from Fig.8, the teether 50, according to this embodiment, is basically constituted in  
30 the same manner as that described in the first embodiment, except that the teething element 51 includes a fixing portion 55a, 55b for preventing the grip portion 52 from displacing, such as swinging, at both end portions thereof.

Each of the fixing portions 55a, 55b is mounted, elongated downwardly in a vertical direction, as viewed in Fig.8, in a bore 53a, 53b, formed at the opposite ends of the teething element 51, wherein the opposite end portions  
5 54a, 54b of the grip portion 52 are engaged with the fixing portion 55a, 55b.

Constructed as described above, the grip portion 52 is prevented from swinging in a direction of an arrow X,  
10 as viewed in Fig.9.

As will be apparent, when the user, such as a baby, grips the grip portion 52, while biting the teething element 51, and moves the grip portion 52 in a direction  
15 of the arrow X, Fig.9, the teeth element 51 would not be displaced relative to the grip portion 52, so that the user's lip is prevented from being interposed therebetween. Accordingly, the teether according to this embodiment is very safe for the baby, and the like.

20 Hereinbefore, according to each embodiment of the teether, plural rolling spherical bodies are received in a tubular interior space of the grip portion thereof in order for the grip portion to be used as a toy. It is, however, to be understood that the present invention is by  
25 no means restricted to the illustrated embodiment; every kinds of toy attracting the attention of the baby and the like may, of course, be adapted thereto.

30 The grip portion may, of course, be made up of one kind of rubber.

As will be understood from the foregoing description, the teether according to the present invention enables a  
35 user to use it by gripping the grip portion, so that the



user would not drop the teether when removing the teether from the user's mouth.

Therefore, the present invention provide a teether,  
5 wherein the same is good for hygiene and has an attractive value added thereto.

The terms and expression which have been employed herein are used as terms of description and not of  
10 limitation, and there is no intent, in the use of such terms and expressions, of excluding any of the equivalents of the features shown and described or portions thereof, but it is recognized that various modifications are possible within the scope of the invention, as claimed in  
15 the accompanying claims.

**CLAIMS**

1. A teether, comprising:

a teething element; and

5

a grip portion mounted on said teething element having sound making means.

2. A teether as recited in claim 1, wherein said  
10 teething element is composed of a plurality of portions.

3. A teether as recited in claim 1, wherein said grip  
portion includes a generally semicircular or oval tubular  
ring, and said teething element is mounted between both  
15 ends of said tubular ring.

4. A teether, as recited in claim 1, wherein said sound  
making means includes;

20 a grip portion for mounting said plural teething  
elements, a generally semicircular or oval tubular ring  
and plural spherical bodies movably disposed in said  
tubular ring.

25 5. A teether as recited in claim 1, wherein said grip  
portion is immovably mounted on said grip portion relative  
thereto.

6. A teether, comprising:

30

a teething element;

a grip portion mounted to said teething element, said  
grip portion including a generally semicircular or oval  
35 tubular ring; and

at least one moving element disposed within said tubular ring, movement of said moving element attracting a user such as a baby.

5 7. A teether as recited in claim 6, wherein said teething element is composed of a plurality of portions.

8. A teether as recited in claim 6, wherein at least a portion of said grip portion is transparent and said  
10 moving element is composed of a plurality of spherical bodies, at least one of said plural spherical bodies being differently colored from the other of said spherical bodies.

15 9. A teether as recited in claim 6, wherein at least a portion of said tubular ring is transparent and said moving body is composed of a plurality of spherical bodies, at least one of said plural spherical bodies being colored with plural colors.

20 10. A teether as recited in claim 6, wherein said grip portion is a generally semicircular or oval tubular ring, and said teething element is mounted between both ends of said tubular ring.

25 11. A teether, comprising:

plural teething elements; and

30 a grip portion for mounting said teething elements, wherein said grip portion includes a generally semicircular or oval tubular ring, said tubular ring including plural spherical bodies movably disposed therewithin.

35

12. A teether as recited in claim 6, wherein said grip portion is immovably mounted on said teething element relative thereto.

5 13. A teether as recited in claim 6, wherein said grip portion comprises a hollow tubular ring, and further comprising a plurality of spherical bodies movably disposed within said tubular ring, each of said plurality of spherical bodies being respectively differently colored  
10 from each other.

14. A teether as recited in claim 6, wherein said grip portion comprises a hollow member, and further comprising a plurality of separate bodies movably disposed within  
15 said hollow member, each of said plurality of separate bodies being respectively differently colored from each other.

15. A teether substantially as hereinbefore described  
20 with referent to Figs.1 to 9 herein.

<b>Patents Act 1977</b> <b>Examiner's report to the Comptroller under Section 17</b> <b>(The Search report)</b>		Application number GB 9506897.9
<b>Relevant Technical Fields</b>  (i) UK Cl (Ed.N)      A5X (X32) A6S (ii) Int Cl (Ed.6)      A61J 17/00, 17/02 A63H 5/00		Search Examiner MR N A FRANKLIN
<b>Databases (see below)</b> (i) UK Patent Office collections of GB, EP, WO and US patent specifications.  (ii) ONLINE: WPI		Date of completion of Search 27 JUNE 1995  Documents considered relevant following a search in respect of Claims :- 1-5

#### Categories of documents

<b>X:</b>	Document indicating lack of novelty or of inventive step.	<b>P:</b>	Document published on or after the declared priority date but before the filing date of the present application.
<b>Y:</b>	Document indicating lack of inventive step if combined with one or more other documents of the same category.	<b>E:</b>	Patent document published on or after, but with priority date earlier than, the filing date of the present application.
<b>A:</b>	Document indicating technological background and/or state of the art.	<b>&amp;:</b>	Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages		Relevant to claim(s)
X	GB 2191104 A	(CHUN YIP SILVERWARE LTD) combined teething ring and rattle	1 at least
X	GB 1408900	(HILARY PAGE) note page 1 lines 9-29, 80-83	1 at least
X	GB 1404770	(HILARY PAGE) note page 1 lines 47-54	1 at least
X	GB 1355057	(HILARY PAGE) note teething portion 15, rattle 14 and handle 10 in Figures	1 at least
X	GB 1172565	(HILARY PAGE) note page 1 lines 9-14, lines 25-29	1 at least
X	GB 879339	(KIDDICRAFT LTD) note page 1 lines 9-14, 31-34	1 at least
X	US 5059215	(GIRAU) note Figure 1 and column 3 lines 47-54	1 at least
X	US 4569349	(McKEE) note teether of Figure 1 and column 2 lines 46-49	1 at least

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